

and whose matrix elements are equal to or close to 1.

20. A device according to [claims 14 to 17] claim 16, which also has a unit [(112)] for equalizing the received signal which is so designed that it normalizes the amplitudes of the signals of the partial channels, the unit for equalizing following the unit [(110)] for extracting the combined coded information symbols.

21. A method for transmitting information over a plurality of partial channels which have different transmission characteristics and together form a transmission channel, with the following steps:

grouping [(102)] the information as assigned to the partial channels;

coding [(103a)] information assigned to a first set of partial channels by means of a first coding method to obtain a first set of coded information symbols, where a first coded information symbol of the first set of coded information symbols has a first amount of information assigned to it;

coding [(103b)] information assigned to a second set of partial channels by means of a second coding method to obtain a second set of coded information symbols, where a second coded information symbol of the second set of coded information symbols has a second amount of information assigned to it which differs from the first amount of information;

combining [(104a)] the coded information symbols of the first set according to a first combination specification so as to generate a first set of combined coded

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a second unit for decoding the coded information symbols of the second set so as to recapture the information assigned to the coded information symbols of the second set, the second unit for decoding being designed to also decode the at least one partial channel of the second set of partial channels.

17. A device according to claim 16, wherein the unit for extracting the combined coded information symbols has a unit for performing a discrete Fourier transform, which is preferably implemented in the form of a fast Fourier transform.
18. A device according to claim 16, wherein the first and the second combination specification are combination specifications for combining the information symbols in an essentially orthogonal and essentially normalized, i.e. in an essentially orthonormalized or unitary, way, and wherein the first and the second processing specification are the inverses of these combination specifications.
19. A device according to claim 18, wherein the first and the second processing specification are inverse Hadamard matrices or inverse pseudo random noise matrices or some other sufficiently orthonormal or unitary matrices which are sufficiently inverse to the combination specification and whose matrix elements are equal to or close to 1.
20. A device according to claim 16, which also has a unit for equalizing the received signal which is so designed that it normalizes the amplitudes of the signals of the partial channels, the unit for equalizing following the unit for extracting the combined coded information symbols.

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